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10/674,358	10/01/2003	Tsunemi Sugiyama	242578US0	7646
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER DOTE, JANIS L	
			ART UNIT 1756	PAPER NUMBER
			NOTIFICATION DATE 07/06/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/674,358

Applicant(s)

SUGIYAMA ET AL.

Examiner

Janis L. Dote

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/21/07; 3/9/07; 5/3/07; 6/7/07.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

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1. The examiner acknowledges the amendments to claims 1 and 3 and the cancellation of claim 16 filed on Apr. 5, 2007.

Claims 1-15 are pending.

2. Applicants assert that since the previous amendment was submitted with an RCE, "any List of Related Cases submitted therewith would have been proper. It would have elevated form over substance to have to resubmit the Lists of Related Cases that were filed on September 9, 2004, and September 23, 2004, even if the mechanics of their original submission was improper. Therefore, the Examiner is respectfully requested to acknowledge consideration of these Lists of Related Cases."

However, applicants did not file with the RCE an Information disclosure statement (IDS) comprising the Lists of related cases that were previously filed in the Information disclosure statements on Sep. 9, 2004, and Sep. 23, 2004. As discussed in the office action mailed on Sep. 14, 2006, the IDSs filed on Sep. 9, 2004, and Sep. 23, 2004, did not comply with the requirements of 37 CFR 1.98 at the time the IDSs were filed. MPEP 609.5(a) states that in response to a noncomplying IDS, applicants may file a new IDS or correct the deficiency in the previously filed IDS. Applicants did not file a new IDS, nor did they correct the deficiencies of the previously filed IDSs

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with the RCE. In particular, applicants did not provide the missing copies of those portions of the U.S. applications, which caused them to be listed in the previously filed IDSs. Thus, the information contained in those "Lists" filed in the IDSs on Sep. 9, 2004, and Sep. 23, 2004, will not be considered.

As discussed in the office action mailed on Feb. 8, 2007, paragraph 3, applicants are advised that the date of any re-submission of any item of information contained in the information disclosure statements filed on Sep. 9, 2004, and Sep. 24, 2004, or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

3. The rejection of claim 16 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Feb. 8, 2007, paragraph 6, has been mooted by the cancellation of claim 16 filed on Apr. 5, 2007.

The rejections under 35 U.S.C. 103(a) of claims 1-13 and 16 over WO 02/056116 (Emoto) combined with US 6,037,090 (Tanaka) and of claims 14 and 15 over US 5,430,526 (Ohkubo) combined with Emoto and Tanaka, set forth in the office action mailed on

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Feb. 8, 2007, paragraphs 8 and 9, respectively, have been withdrawn in response to the amendment to claim 1 filed on Apr. 5, 2007. That amendment to claim 1 added the limitation that the polymer dispersant Markush group "excludes polycaprolactone resins." As discussed in the office action mailed on Feb. 8, 2007, Tanaka teaches polymer dispersants comprising polycaprolactone graft or block resins.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-13 are rejected under 35 U.S.C. 103(a) as unpatentable over WO 02/056116 (Emoto), as evidenced by US 2004/0053155 A1 (US'155), combined with Japanese Patent 11-231572 (JP'572). See the USPTO English-language translation of JP'572 for cites. The US published application (US'155), filed under 35 U.S.C. 371, is the national stage of the WO application of Emoto, and therefore is presumed to have been an accurate English-language translation of the WO application of Emoto. See US'155 for all cites to Emoto.

Emoto discloses a toner comprising a binder resin comprising a urea-modified polyester resin and an unmodified polyester resin, copper phthalocyanine blue pigment, and rice

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wax. US'155, paragraph 0015, and example 1 at paragraphs 0118 through 0129. The toner has a number average particle size (Dn) of 4.8  $\mu\text{m}$  and a volume average particle size (Dv) of 5.5  $\mu\text{m}$ , a ratio of Dv/Dn of 1.15, and an average circularity of 0.94.

US'155, Table 2, example 1. The Dv and ratio Dv/Dn are within the ranges recited in instant claim 8. The circularity of 0.94 is within the range of 0.94 to 1.00 recited in instant claim 9.

The weight ratio of the urea-modified polyester to the unmodified polyester resin is 0.26, which is within the range of 5/95 to 25/75 (i.e., 0.053 to 0.33) recited in instant claim 5.

The weight ratio was determined from the information disclosed in example 1. The dispersed pigment in the toner has a number average particle size of 0.4  $\mu\text{m}$ , and comprises 3.5 % by number of particles having a number average particle size of 0.7  $\mu\text{m}$  or more. The average particle size and particle size distribution of the colorant meet the colorant limitations recited in instant claim 4. Emoto discloses that the above toner may be used in a two-component developer comprising a carrier. US'155,

paragraph 0116. Emoto discloses a commercially available copier comprising the toner described above. US'155, paragraph 0165.

Thus, Emoto discloses a container comprising the toner, as recited in instant claim 13. Emoto discloses an image forming method comprising the steps of charging a photoconductor,

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exposing the photoconductor to light to form an electrostatic latent image, developing the latent image with a developer, transferring the toner image to a receiving member, e.g., paper, and fixing the toner image to the receiving member. US'155, paragraphs 0002 and 0165.

According to Emoto, the toner provides high quality images excellent in transparency and chroma (brightness, gloss), and has excellent powder fluidity, anti-offset properties, charge stability, and transferability. US'155, paragraph 0012, and Table 2, example 1.

The toner binder resin has a glass transition temperature (T<sub>g</sub>) of 55°C, which is within the range of 40 to 70°C recited in instant claim 7. US'155, Table 1. Emoto does not disclose that its toner has a T<sub>g</sub> in the range of 40 to 70°C as recited in instant claim 7. However, because the Emoto toner in example 1 comprises 84 wt% of the binder resin and the binder resin has a T<sub>g</sub> of 55°C, it is reasonable to presume that the toner has a T<sub>g</sub> within the range recited in instant claim 7. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

The Emoto toner in example 1 is obtained by: (1) preparing an oil phase solution by dissolving a prepolymer comprising isocyanate groups that is capable of forming a urea-modified

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polyester and the un-modified polyester resin in a solvent, dispersing the colorant, and dispersing or dissolving the rice wax; (2) "pulverizing" the oil phase solution of step (1); (3) dispersing the pulverized oil phase in an aqueous solution comprising a surfactant and inorganic fine particles; (4) adding ketimine compound 1 as the crosslinker and elongation agent to the dispersion of step (3) and reacting ketimine compound 1 with the prepolymer to form the urea-modified polyester; (5) removing the solvent from the mixture of step (4); and (6) washing the mixture of step (5) to obtain toner particles. See US'155, example 1.

Emoto does not exemplify the use of an aqueous solution comprising resin fine particles as recited in instant claim 1. However, Emoto teaches that the aqueous solution may comprise, as a dispersing agent, polymer fine particles that are insoluble or hardly soluble in water. US'155, paragraph 0102. According to Emoto, the use of polymer fine particles provides toner particles having a sharp particle size distribution. US'155, paragraphs 0095 and 0103. Emoto teaches that the volume average particle size of the polymer fine particles is controlled to obtain a toner having a desired particle size. According to Emoto, when a toner having a volume average particle size of 5  $\mu\text{m}$  is desired, the volume average particle size of the polymer



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fine particles ranges from 0.0025 to 1.5  $\mu\text{m}$ , preferably from 0.005 to 1.0  $\mu\text{m}$  (i.e., 5 to 1000 nm). US'155, paragraph 0104. As discussed above, the volume average particle size of the toner in example 1 of Emoto is 5.5  $\mu\text{m}$ . The range of 5 to 1000 nm overlaps the range of 5 to 500 nm recited in instant claim 10. Because the prior art recognizes that the volume average particle size of the polymer fine particles is a result-effective variable, its variation is presumably within the skill of the ordinary worker in the art.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Emoto, to use an aqueous solution comprising, as a dispersing agent, polymer fine particles, as taught by Emoto, where the polymer fine particles have a volume average particle size that is within the particle size range recited in instant claim 10, as the aqueous dispersion solution in the method disclosed in example 1 of Emoto. That person would have had a reasonable expectation of successfully obtaining a toner having the desired volume average particle size of 5.5  $\mu\text{m}$ , the ratio of  $D_v/D_n$  of 1.15, and the properties disclosed by Emoto.

Emoto does not disclose the use of a polymeric pigment dispersant or a pigment dispersion auxiliary agent as recited in instant claims 1 and 3, respectively.

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JP'572 teaches forming a pigment dispersion solution by mixing 88 parts by weight of the cyanogen pigment C.I. pigment blue 15:3, 10 parts by weight of a "macromolecule dispersant," such as a polycaprolactone, and 2 parts by weight of the "synergist" 1-aminoanthraquinone-2-carboxylic acid in 100 parts by weight of the solvent ethyl acetate; and dissolving or dispersing the mixture. Translation, paragraphs 0051 and 0057. JP'572 further teaches that its "macromolecule" dispersant can be a well-known macromolecule dispersant, such as all of the particular polymer dispersants listed in the Markush group recited in instant claim 1, e.g., acrylic resin, an unsaturated polyester resin, chlorinated polyethylene, a copolymer of styrene and maleic anhydride or their half esters, etc. Translation, paragraph 21. The "macromolecule dispersant" amount of 11 wt% based on the weight of the pigment is within the range of 1 to 30 wt% based on the weight of the colorant recited in instant claim 2..

JP'572 does not identify the "synergist" as a pigment dispersant auxiliary agent as recited in instant claim 3. However, JP'572 teaches that the "synergist" interacts strongly with the pigment and with the "macromolecule" dispersant. According to JP'572, the "synergist" aids in the reaction between the pigment and the "macromolecule" dispersant to

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improve the dispersibility of the pigment in the toner binder resin. Translation, paragraph 0009. Thus, based on the teachings in JP'572, it is reasonable to presume that the JP'572 "synergist" has the characteristics of a pigment dispersant auxiliary agent as recited in instant claim 3. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

JP'572 teaches that the resulting pigment dispersion solution may be used in a "so-called" dissolution suspension process for making a toner comprising the steps of: dissolving or dispersing into an organic solvent the binder resin and the pigment dispersion solution to prepare an oily phase, and dispersing the oily phase in an aqueous solution to form toner particles. Translation, paragraphs 0029-0036, and example 1 in paragraphs 0051-0055. The steps in the dissolution suspension process disclosed by JP'572 are similar to steps disclosed in the method of Emoto. According to JP'572, the use of its "synergist" combined with the "macromolecule" dispersant improves the dispersibility and dispersion stability of the pigment in the toner binder resin. Translation, paragraphs 0006, 0007, and 0089. JP'572 also teaches that the dispersibility of the pigment in the toner is good. The toner

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has excellent transparency and color forming ability.

Paragraphs 0006 and 0089.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'572, to use the pigment dispersion solution as taught by JP'572, comprising the "macromolecule dispersant" that meets the polymer dispersant recited in instant claim 1 in the amount of 11 wt% based on the amount of the pigment, the JP'572 "synergist," and the copper blue phthalocyanine pigment in the step of forming the oil phase in the method of making a toner rendered obvious over the teachings in Emoto. That person would have had a reasonable expectation of successfully obtaining a toner and an image forming method using said toner that provide images with improved color and transparency, wherein the pigment is stably dispersed in the toner particles.

Instant claims 1-13 are written in product-by-process format. The combined teachings of Emoto and JP'572 do not make a toner by the process recited in the instant claims. In particular, the references do not teach making a colorant masterbatch that is prepared by kneading the colorant, resin, and pigment dispersion, whereby the colorant is stably dispersed in the resin. However, as discussed above, the toner rendered obvious over the combined teachings of Emoto and JP'572 meets

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the compositional limitations recited in the instant claims. According to JP'572, the use of a polymer dispersant and its synergist improves the dispersibility and the dispersion stability of the pigment in the binder resin of the toner. Thus, it appears that the toner rendered obvious over the combined teachings of the prior art is the same or substantially the same as the toners made by the process recited in the instant claims. The burden is on applicants to prove otherwise. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985). MPEP 2113.

6. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,430,526 (Ohkubo) combined with Emoto, as evidenced by US'155, and JP'572. See the USPTO translation of JP'572 for cites. For the reasons discussed in paragraph 5 above, see US'155, the translation of Emoto, for cites.

Ohkubo discloses an electrophotographic image forming apparatus comprising all the components recited in instant claim 14, but for the particular toner. Fig. 1 and col. 2, line 56, to col. 3, line 57. The apparatus shown in Fig. 1 comprises an electrophotographic photosensitive drum 3, a contact charging member 4, an exposure unit that comprises a

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laser beam L, a developing unit 5, a transfer unit 7, and a fixing unit 17. Ohkubo also discloses a process cartridge that comprises all the components recited in instant claim 15, but for the particular toner. Fig. 2 and col. 3, line 65, to col. 4, line 8. The process cartridge shown in Fig. 2 comprises the photosensitive drum 3, a charging roller 4, a developing device 5, and cleaning unit 8. Ohkubo teaches that the process cartridge is attachably mounted or detachably mountable as a unit relative to the image forming apparatus. Col. 3, lines 63-65.

Ohkubo does not exemplify the particular toner recited in the instant claims. However, Ohkubo does not limit the type of toner used.

Emoto, as evidenced by US'155, combined with JP'572, renders obvious a toner as described in paragraph 5 above, which is incorporated herein by reference. For the reasons discussed in paragraph 5 above, that toner meets the compositional limitations recited in instant claims 14 and 15. As discussed in paragraph 5, Emoto teaches that its toner provides high quality images excellent in transparency and chroma (brightness, gloss), and has excellent powder fluidity, anti-offset properties, charge stability, and transferability. As discussed in paragraph 5 above, JP'572 teaches the benefits of using its

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"synergist" in combination with a "macromolecule" dispersant in forming a toner pigment dispersion, for example, to improve the dispersibility and dispersion stability of the pigment, such that the color forming ability of the toner and light transparency are said to be improved.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings in Emoto and JP'572, to use the toner rendered obvious over the combined teachings of Emoto, as evidenced by US'155, and JP'572, as the toner in the image forming apparatus and the process cartridge disclosed by Ohkubo. That person would have had a reasonable expectation of successfully providing an electrophotographic image forming apparatus and a process cartridge that provide high quality images that are excellent in transparency and chroma (brightness, gloss) as taught by Emoto and that also have improved color forming ability as taught by JP'572.

7. Applicants' arguments filed on Apr. 5, 2007, as applicable to the rejections set forth in paragraphs 5 and 6 above have been fully considered but they are not persuasive.

Applicants assert that without the present disclosure, one of ordinary skill in the art would not have combined Emoto with JP'572. Applicants assert that even if they are combined, the

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result would not be the presently claimed invention because neither Emoto nor JP'572 discloses or suggests the use of a polymer dispersant to stably disperse a colorant in a resin in the production of a masterbatch that is used to prepare a toner. Applicants assert that in JP'572, the colorant is not stably dispersed in a resin, but is dispersed in a solvent.

Applicants' assertions are not persuasive for the following reasons:

First, applicants' assertion that the examiner's conclusion of obviousness is based upon improper hindsight reasoning is not persuasive. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Second, contrary to applicants' assertion regarding the Emoto colorant masterbatch is not pertinent to the rejection set forth in paragraph 5 above. Example 1 in Emoto does not require the use of a colorant masterbatch. Rather, example 1 in Emoto prepares its toner by the process described in the rejection in



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paragraph 5 above. As discussed in paragraph 5 above, JP'572 teaches that its pigment dispersant solution that comprises a polymer dispersant, the JP'572 synergist, and pigment can be used in the formation of a toner by a dissolution suspension process that comprises steps that are similar to those used in the example 1 of Emoto. In addition, in Emoto's step (1), Emoto stirs the solvent mixture using a TK-type homomixer at 12,000 rpm. See US'155, paragraph 0125. Said mixing appears to meet the JP'572 preferred mixing disclosed in paragraph 0032, which applicants noted in their response filed on Apr. 5, 2007, page 8. As noted by applicants, JP'572 discloses that the color material dispersion is preferably dispersed again with a high-speed shearer so that the color material does not aggregate when mixing with color material dispersion and the binder resin. See the translation, paragraph 0032.

As discussed in paragraph 5 above, JP'572 provides reason, motivation, and suggestion to a person having ordinary skill in the art to use its pigment dispersion solution. Accordingly, for the reasons discussed in the rejections in paragraphs 5 and 6, the combined teachings of the cited prior art render obvious the subject matter recited in the instant claims.

Third, the recitation of a "colorant master batch" is a product-by-process limitation. The claims are drawn to a toner, not to a process of making a toner.

Fourth, the colorant master batch is an intermediate product that is used in the formation of the toner. Instant claim 1 recites that the colorant masterbatch is dispersed or dissolved in an organic solvent with a modified polyester resin. Thus, it would appear that when the colorant masterbatch is dissolved in the organic solvent with the modified polyester resin, the colorant, wherein the polymer dispersant and the synergist is attached to the colorant, may no longer be stably dispersed in the resin in the masterbatch, but would be dispersed with the other toner ingredients in the organic solvent mixture.

Fifth, the instant specification at page 16, lines 7-9, discloses that when the colorant masterbatch is used, the resultant toner "includes well dispersed colorant, a small dispersion diameter thereof and has good transparency." As discussed in the rejection in paragraph 5 above, according to JP'572, the use of a polymer dispersant and its synergist improves the dispersibility and the dispersion stability of the pigment in the binder resin of the toner. The color formation characteristics and transparency of the toner are said to be

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improved. In addition, JP'572 teaches that when its pigment dispersion solution is used in the formation of a toner, the resultant pigment dispersion particle diameter in the binder resin in the toner is less than 0.7  $\mu\text{m}$ , preferably in the range of 0.1 to 0.5  $\mu\text{m}$ . JP'572 further teaches that if the pigment dispersion particle size is larger than 0.7  $\mu\text{m}$ , the pigment particles are not sufficiently dispersed; sufficient color reproducibility and OHP transmission characteristics cannot be obtained. See the USPTO translation, paragraph 0038. For example, in example 1 of JP'572, pigment dispersed in the binder resin in the toner has a dispersed pigment particle diameter of 0.3  $\mu\text{m}$ . See the translation, Table 2 at page 31, example 1. Thus, it appears that JP'572 teaches the same advantages sought by applicants when they use their colorant masterbatch in the formation of a toner.

Thus, for the reasons discussed in paragraph 5 above, the combined teachings of Emoto and JP'572 render obvious a toner that meets the compositional limitations recited in the instant claims. Accordingly, it appears that the toner is the same or substantially the same as the toners made by the process recited in the instant claims. Applicants have not provided any objective evidence showing otherwise.

Accordingly, the rejections in paragraphs 5 and 6 stand.

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8. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLD

Jun. 28, 2007

*Janis L. Dote*  
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PRIMARY EXAMINER  
GROUP 1500  
1700